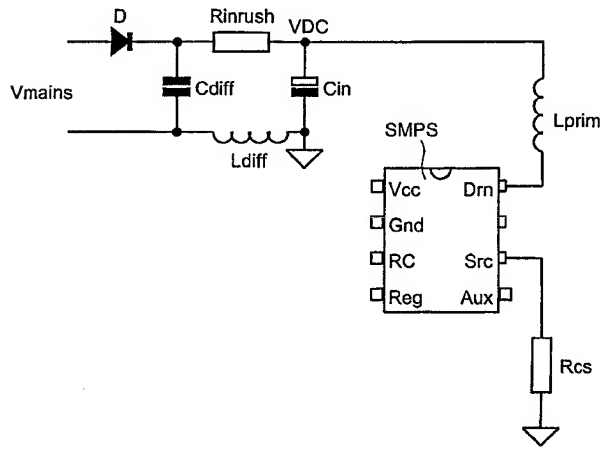
Remarks

Applicant respectfully traverses the § 103(a) rejections of claims 1-15 because the Examiner fails to provide valid reasons for the numerous proposed modifications of the '212 reference and in fact has simply identified circuit elements from various references and arranged these elements, not in the manner taught by the cited references, but in the manner taught by Applicant. The claimed invention, in certain embodiments, is directed to a particular arrangement of circuit elements that forms a simplified input circuit that uses a single electrolytic capacitor and a smaller non-electrolytic capacitor. *See, e.g.,* paragraph 0007 and Figure 1 (reproduced below).

Applicant's Figure 1:



The Examiner has acknowledged that none of the cited '212, '114, '514 and '942 references teach or suggest the claimed invention. Instead, the Examiner cites to different types of complex circuits from each of the references and proposes to take common circuit elements from each of the '114 and '514 references and modify Figure 2 of the '212 reference (reproduced below) to include these common circuit elements. In *KSR,* the Supreme Court stated:

> Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

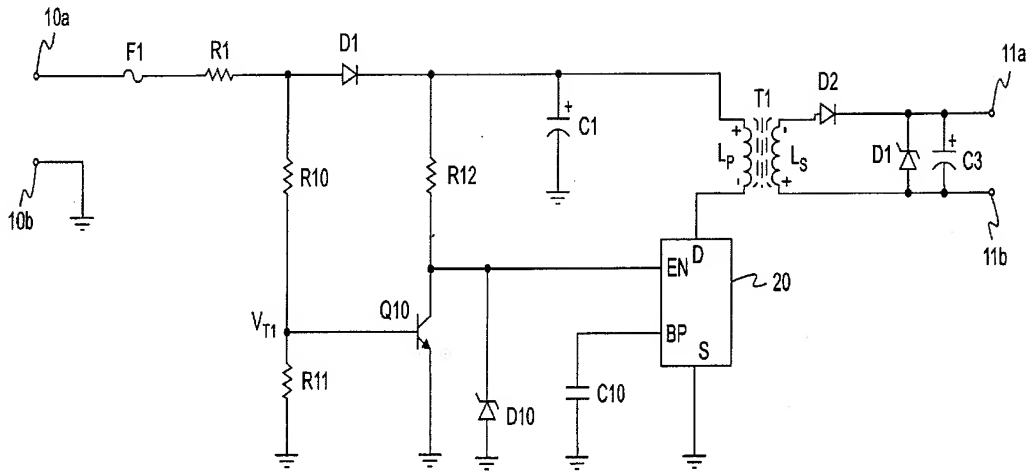
KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741 (U.S. 2007).

In this instance, Applicant submits that the Examiner has simply identified common circuit elements (which can be found in any number of references) and then arranged these elements using the claimed invention as a template. This is the hallmark of improper hindsight reconstruction with the proposed combination being derived, not "on the basis of the facts gleaned from the prior art," but solely from Applicant's disclosure. *See, e.g.,* M.P.E.P. § 2142. The following discussion particularly addresses the impropriety of the rejections presented in the instant Office Action.

The Final Office Action dated February 10, 2009, lists the following new grounds of rejection: claims 1 and 7 stand rejected under 35 U.S.C. § 103(a) over Kayser (U.S. Patent No. 6,295,212) in view of Saleh (U.S. Patent No 4,353,114); claim 2 stands rejected under 35 U.S.C. § 103(a) over the '212 reference in view of the '114 reference and further in view of Hofmeiseter (U.S. Patent 7,068,942); claims 3, 5-6 and 14-15 stand rejected under 35 U.S.C. § 103(a) over the '212 reference in view of the '114 reference and further in view of Balakrishnan (U.S. Patent 6,525,514); claims 4 and 12-13 stand rejected under 35 U.S.C. § 103(a) over the '212 reference in view of the '114, '514 and '942 references; claims 8-11 stand rejected under 35 U.S.C. § 103(a) over the '212 reference in view of the '114 reference and further in view of the TEA152x family data sheet by Phillips; claim 1stands rejected under 35 U.S.C. § 102(b) over Balakrishnan (U.S. Pat. No. 5,285,369); claim 2 stands rejected under 35 U.S.C. § 103(a) over the '369 reference in view of Mardiguian (Michael Mardiguian, Controlling Radiated Emissions by Design 78-82, First Edition, Van Nostrand Reinhold 1992). The Office Action also notes that the title to the Specification is not descriptive and that a new title is required. Claims 3-5 are objected to due to grammatical informalities. Applicant traverses all of the rejections and, unless explicitly stated by the Applicant, does not acquiesce to any objection, rejection or averment made in the Office Action.

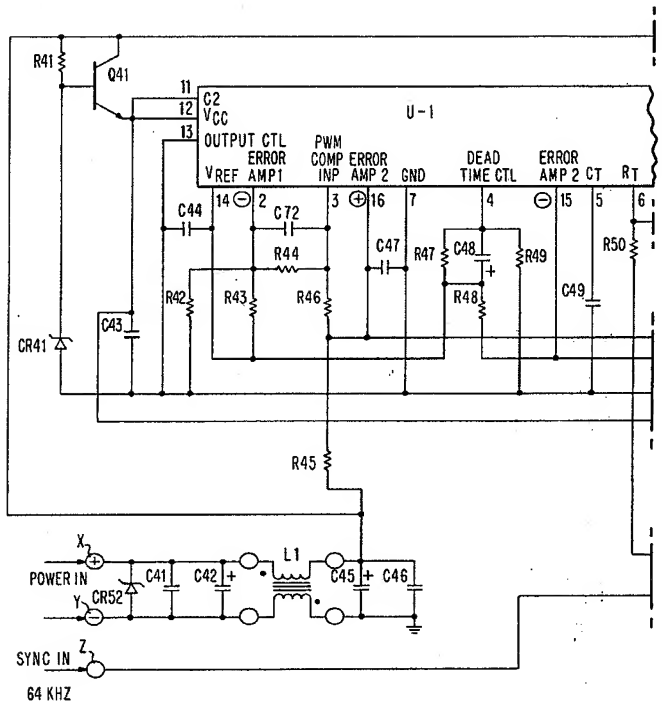
Regarding the § 103(a) rejections of claims 1-15, the Examiner acknowledges that the cited portions of the '212 reference do not correspond to the claimed invention. Specifically, Figure 2 of the '212 reference (reproduced below) does not include a non-electrolytic capacitor, and it also does not include an inrush resistor or coil as claimed by Applicant (*see, e.g.,* claims 3-6 and 12-15).

Figure 2 of the '212 reference:



The Examiner then proposes to modify Figure 2 of the '212 reference to include capacitor C41 shown in Figure 1a of the '114 reference (reproduced below) in parallel with capacitor C1.

Figure 1a of the '114 reference:

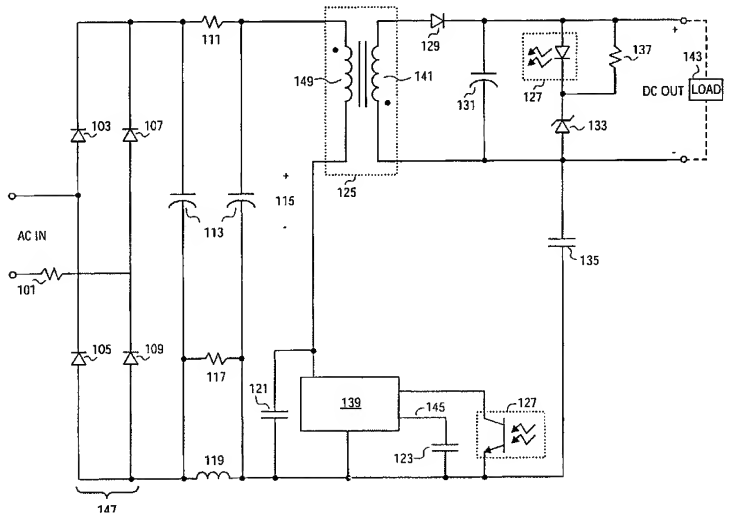


However, capacitor C41 of the '114 reference is part of a DC/DC converter whereas Figure 2 of the '212 reference is an AC/DC converter. The '114 reference does not teach or suggest the desirability of using the filter containing capacitor C41 in the AC/DC convertor of the '212 reference. The '114 reference also does not teach or suggest that

using such a filter in the substantially different circuit of the '212 reference (as is readily apparent from the above Figures) would result in the alleged benefits in the '212 reference of assuring "a relatively steady voltage at the converter" and preventing "voltage ripple at the converter from being reflected back to the source." Moreover, the Examiner appears to be only modifying Figure 2 of the '212 reference to include capacitor C41, not the entire filter of the '114 reference that includes capacitor C1. As such, there is no evidence of record that provides any reason why the skilled artisan would modify Figure 2 of the '212 reference to include a non-electrolytic capacitor in parallel with capacitor C1.

The Examiner further proposes to modify Figure 2 of the '212 reference to include resistor 111 and coil 119 shown in Figure 1 of the '514 reference (reproduced below) to be connected in parallel between capacitor C1 and already added capacitor C41 of the '114 reference.

Figure 1 of the '514 reference:



However, the '212 reference and the '514 reference teach substantially different complex circuits as is readily apparent from the above Figures. The '514 reference does not teach or suggest that using resistor 111 and coil 119 in the circuit of the '212 reference would result in the alleged benefits in the '212 reference of "to low pass filter noise and limit inrush current." In fact, the specification of the '514 reference does not make any mention of resistor 111 or coil 119, let alone teach that these elements "low pass filter noise and limit inrush current" in Figure 1 of the '514 reference as alleged by the Examiner. Applicant submits that the skilled artisan viewing the '514 reference would

not seek to modify Figure 2 of the '212 reference with common circuit elements (resistor 111 and coil 119) that have no specified function in Figure 1 of the '514 reference.

Moreover, the '514 reference teaches that resistor 111 and coil 119 are connected between two electrolytic capacitors 113, instead of between a non-electrolytic capacitor and an electrolytic capacitor as in the claimed invention. There is no teaching or suggestion in the cited references of connecting a resistor and coil in parallel between a non-electrolytic capacitor and an electrolytic capacitor as proposed by the Examiner. The only such teaching of record is Applicant's disclosure. As such, Applicant submits that the Examiner is improperly arranging elements in the manner taught by Applicant (*i.e.*, improper hindsight reconstruction) in an attempt to assert correspondence to the claimed invention. In addition, Figure 2 of the '212 reference already contains an inrush resistor R1. *See, e.g.*, Col. 2:16-18. As such, the skilled artisan would not be motivated to add an apparently redundant component to Figure 2. Applicant submits that the Examiner's proposal to do so is further evidence that the Examiner's proposed combination is improperly based on Applicant's disclosure.

Regarding claims 8-11, Applicant submits that the TEA152X reference fails to cure the deficiencies noted above with respect to the '212 and '114 references. Moreover, the TEA152X reference discloses only the use of a full bridge rectifier, and does not teach or suggest the use of a single diode rectifier as recited in Applicant's claims. The Examiner has provided no evidence that a SMPS IC such as shown in the TEA152X reference could be used with anything other than a full bridge rectifier as taught in the TEA152X reference. Applicant's own specification provides the only evidence of record for the use of a single diode rectifier with a SMPS IC such as shown in the TEA152X reference. As such, the Examiner's proposed combination is once again based on improper hindsight reconstruction in view of Applicant's disclosure.

In view of the above, the § 103(a) rejections of claims 1-15 are improper and Applicant requests that they be withdrawn.

Applicant respectfully traverses the § 102(b) rejection of claim 1 and the § 103(a) rejection of claim 2 (based on the '369 reference) because the cited portions of the '369 reference do not correspond to aspects of the claimed invention directed to a rectifier that is a single diode rectifier. The cited portions of the '369 reference do not teach that diode

106 (*i.e.*, the asserted single diode rectifier) is a rectifier. *See, e.g.*, Figure 3 and Col. 3:44-46. In fact, the only rectifier discussed by the '369 reference in relation to Figure 3 is full-wave bridge rectifier 72, which includes four diodes. As such, the cited portions of the '369 reference do not correspond to the claimed invention. Accordingly, the § 102(b) rejection of claim 1 and the § 103(a) rejection of claim 2 are improper and Applicant requests that they be withdrawn.

Regarding the objection to claims 3-5, Applicant has amended claim 3 to correct the typographical error. As such, Applicant requests that the objection to claims 3-5 be removed.

Regarding the objection to the title of the invention, Applicant appreciates the Examiner's suggestion for a new title. Please amend the title to read as follows: Power converter with a single diode rectifier and a filter. Applicant submits that this new title is descriptive of the claimed invention and in compliance with M.P.E.P. §§ 606 and 606.01. Thus, Applicant requests that the objection to the title be removed.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063 (or the undersigned).

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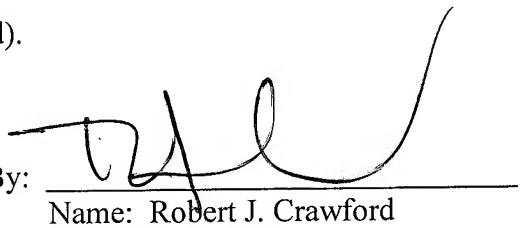
By: 

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